



The Chemical Company

September 13, 2013

Mr. Juan Thomas
Project Manager, RCRA Corrective Action Section
US Environmental Protection Agency
Region V (DE-9J)
77 West Jackson Blvd
Chicago, IL 60604-3511

Subject:

USEPA Response Letter for CMS Work Plan
BASF North Works, Wyandotte, Michigan
US EPA ID: MID 064 197 742

Dear Mr. Thomas:

Thank you for your letter response dated July 2, 2013 (received July 15, 2013) and authorization, with conditions, of BASF's Corrective Measures Study (CMS) Work Plan that was submitted to USEPA on October 31, 2012. BASF will move forward with the implementation of the CMS work plan as discussed below. Also included below are responses to the conditions that USEPA included in their authorization letter; BASF wishes to provide clarification to several points raised by USEPA.

Source Characterization and Hazard Identification

USEPA Written Comment #1: NAPL/Csat References

In both the Executive Summary Section and Section 2.1.2 of the CMS Work Plan, BASF proposes to evaluate the mobility of Non-Aqueous Phase Liquids (NAPL) and then address NAPL through site management and institutional controls. If site-specific assumptions are used to evaluate the mobility of free products, MDEQ's *Operational Memorandum No. 1, Technical Support Document - Attachment 8* should be followed. Also note MDEQ Rule 299.5706a(2)(a), cited in the TSD, which provides:

'If a generic soil cleanup criterion is greater than Csat, then the person proposing or implementing response activity shall document whether additional response activity is required to control free-phase liquids or to protect against hazards associated with free-phase liquids that are not accounted for in development of the generic criteria'.



The Chemical Company

Sediment management is proceeding under the Great Lakes Legacy Program (GLPO). If technically appropriate an integrated approach to shoreline management will be evaluated that would be implemented that ties the channel and uplands projects together.

USEPA Written Comment #3 and 4: Soil & Groundwater Management

In its April 2013 supplement to the Work Plan, BASF proposed to manage exposure and risk from contaminated soils at the North Works facility's property boundary, rather than focusing on individual solid waste management units (SWMUs) and areas of concern (AOCs). EPA does not agree with this proposal. The CMS must address risk management of contaminated soil at each SWMU or AOC. However, it is acceptable to EPA to manage risk regarding contaminated groundwater at the facility at the property boundary, as BASF proposes in Section 2.1.2 of the Work Plan.

Monitoring and control of venting groundwater must address the two major saturated zones - the fill unit and the lower sand unit. In addition, the Suggested Inventory of Groundwater Monitoring Program Constituents for BASF North Works, attached to EPA's April 26, 2012, letter found in Appendix A of the CMS Work Plan should be amended to include pH. An updated Inventory is attached.

BASF Response: USEPA has approved managing groundwater on a site-wide basis and at property boundary. This is consistent with what BASF presented in the CMS Work Plan. BASF's CMS Work Plan proposes a soil risk management approach that will include institutional controls, a site soil management program, and possible soil excavation/relocation in certain instances. As a clarification, the intent is not to manage soils "at the property boundary" but instead on an AOC/SWMU basis.

USEPA Written Comment #6: Risk Assessment Addendum

USEPA approves the Corrective Measures Work Plan Schedule, except that the Tier II Risk Assessment Addendum shall be submitted within 60 days following EPA's approval of the CMS Work Plan. A Conceptual Site Model shall be included as a component of the Tier II Risk Assessment Addendum. BASF shall develop the Conceptual Site Model for both on-site and off-site areas, and shall include in the Model information noted in the first four bulleted items specified under Section 2.1.1, (*Subtask A - Description of Current Conditions*) of the Work Plan.

BASF Response: The purpose of the *CMS Work Plan* is to identify data needs that BASF believes are required to update the Conceptual Site Model (CSM). The collection and evaluation of these data are necessary to prepare the Tier II Risk



The Chemical Company

As discussed above completion of the Tier II Risk Assessment Addendum is predicated on completion of the CMS Work Plan tasks, including the DNAPL mobility investigation. The attached timeline outlines the proposed schedule leading to the submittal of the draft Tier II addendum to USEPA on or before April 25, 2014. BASF will move forward with the implementation of the CMS work plan and has directed ARCADIS to begin scheduling and preparations for the field efforts. If you have questions, please do not hesitate to contact me (734-324-6298) and thank you Juan.

Sincerely,

BASF Corporation

GERDENM

Digitally signed by GERDENM
DN: dc=NET, dc=BASF, dc=BASFAD,
ou=Client-ITIS, ou=NA, ou=2063,
ou=Wyandotte, ou=Users,
cn=GERDENM
Date: 2013.09.13 17:47:08 -04'00'

Michael Gerdenich
Remediation Senior Specialist

Copies:

R. Conforti, MDEQ
D Slayton, MDEQ
J. McKenna, ARCADIS